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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :
: Nicholas Sauriol et al. : Group Art Unit: 2141
: :
Appln. No.: 10/029,855 :
: Examiner: Nicholas Taylor
Filed: December 31, 2001 :
: :
For: SYSTEM AND METHOD FOR :
NETWORK CONFIGURATION ENGINE :

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APPEAL BRIEF

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I. INTRODUCTION

In response to the Office Action dated August 22, 2005, finally rejecting pending claims 1-24, Appellant respectfully requests that the Board of Patent Appeals and Interferences reconsider and withdraw the rejections of record, and allow the pending claims, which are attached hereto as an Appendix A.

II. REAL PARTY IN INTEREST

The real party in interest is Nortel Networks Limited, the assignee of the above-referenced application.

III. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences.

IV. STATUS OF CLAIMS

Claims 1-24 are pending in this application. The rejection of claims 1-24 is appealed.

V. STATUS OF AMENDMENTS

No amendments to the claims have been filed subsequent to the final rejection dated August 22, 2005.

VI. SUMMARY OF INVENTION

Appellant believes that a brief discussion of the background technology, followed by a brief summary of the embodiments of the invention and the problems solved by the embodiments of the present invention, will assist the Board of Patent Appeals and Interferences (hereinafter referred to as

"the Board") in appreciating the significant advances made by the embodiments of the present invention. Finally, concise explanations of each of the independent claims is provided, including reference to exemplary portions of the specification and figures.

A. The Background

The communication industry, including telephonic, IP-based digital and other networks, has seen the type and number of network elements multiply in recent years. Unfortunately, manufacturers of network equipment such as routers, switches, database elements and others have not made it a priority to create flexible configuration tools.

Thus, a manufacturer of data, telephone or hybrid telephone/data switches might provide an independent software package to select and configure networks composed of its own products. However, networks built from components made by diverse manufacturers have had no universal tool for the selection, testing and integration of overall network architectures. The costs of network acquisition and maintenance, as well as personnel training, are therefore increased. Other problems exist.

B. The Embodiments of The Present Invention

The invention overcoming these and other problems in the

art relates in one regard to a system and method for a network configurator, the configurator platform having an extensible library of network elements to selectively add, drop or change the network devices and services being prepared and deployed. In one embodiment, the network configurator of the invention may be implemented as a portable software package, for instance a Java module, which serves to abstract the hardware and software specifications and interfaces from one or many manufacturers while permitting simulation and configuration of assembled networks to take place. Both physical network elements as well as user interfaces, such as network mappers and other software tools, may be configured according to the invention. See Page 2, lines 2-17.

C. Explanation of Independent Claim 1

A system (102) for configuring networks, comprising:

at least one network element database (106), the at least one network element database storing abstracted interface data (114) regarding at least one network element; and

a processor (104 and 112), communicating with the at least one network element database, the processor operable to: (1) abstract the interface data regarding the at least one network element (Page 2, lines 11-15; Page 6, lines 21-28), and (2) configure a network using the abstracted interface data stored

in the at least one network element database (Page 2, lines 11-15; Page 7, lines 6-28).

D. Explanation of Independent Claim 11

A method for configuring networks using a processor, comprising:

a) abstracting interface data regarding at least one network element (Page 2, lines 11-15; Page 6, lines 21-28; Page, lines 25-27);

b) storing the abstracted interface data regarding the at least one network element in at least one network element database (Page 6, lines 4-20); and

c) configuring a network via communication with the abstracted interface data stored in the at least one network element database (Page 6, lines 21-28; Page 7, lines 6, 28).

VII. ISSUE

The issues on appeal are whether the following rejections are proper: (1) the rejection under 35 U.S.C. § 102(e) of Claims 1-20, 23 and 24 Based on U.S. Patent No. 6,788,315 to Kekic ("Kekic"), and (2) the rejection under 35 U.S.C. § 103(a) of claims 21 and 22 based on Kekic in view U.S. Patent No. 6,259,679 to Henderson ("Henderson").

VIII. ARGUMENT

A. The Rejection Under 35 U.S.C. § 102(e) of Claims 1-20, 23 and 24 Based on U.S. Patent No. 6,788,315 to Kekic ("Kekic") is Improper

On page 3 of the Office Action, claims 1-20, 23 and 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kekic (U.S. Patent No. 6,788,315). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id.. "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention." Id..

Regarding independent claims 1 and 11, the Examiner asserts that Kekic teaches a method for configuring networks using a processor, comprising, among other things: a) abstracting interface data regarding at least one network element (Kekic, column 26, lines 31-58). In response to the Appellant's arguments, the Examiner asserts that Kekic describes an element manager that builds off a network management information database (Kekic, column 26, lines 44-50). The Examiner also asserts that Kekic goes on to describe the element manager as follows: "Element manager 800 is an abstract representation of the managed computer network element that when executed on manager 404 of managed element server 314 manages and monitors the managed computer network element associated with element manager 800." (Kekic, column 26, lines 31-58).

However, Appellant respectfully submits that the excerpts relied upon by the Examiner do not teach or suggest the step of "abstracting interface data regarding at least one network element," as expressly set forth in claims 1 and 11. Rather, the element manager 800 referenced by the Examiner merely comprises an abstract representation managed computer network element, not any feature or functionality that actually performs the step of "abstracting":

Element manager 800 (FIG. 8) is a standardized, cross-vendor structure that can be built using visual

element manager builder 406(FIG. 4), as described more completely below, to support any computer network element that can be managed using the network management protocol. *Element manager 800 is an abstract representation of the managed computer network element that when executed on manager 404 of managed element server 314 manages and monitors the managed computer network element associated with element manager 800.*

The information stored in element manager 800 is divided into two categories, basic information 801 and event management information 802. Basic information 801 includes (i) visual display information 810 that is used to provide a user with a visual display of the managed computer network element in element image area 602, (ii) hotspots of the managed computer network element, and (iii) attributes of each hot spot.

Kekic, Col. 26, lines 41-58 (emphasis added).

Further, Appellant respectfully submits that, unlike Kekic, the systems and methods comprise a configuration engine which serves to actually abstract the hardware and software specifications and interfaces from one or more manufacturers while permitting simulation and configuration of assembled networks to take place. See, e.g., Page 2, lines 8-17. Appellant respectfully submits that maintaining or storing abstracted information, as is the case with Kekic, is not the same as performing the actual step of "abstracting" such information. Moreover, Appellant respectfully submits that even if Kekic does teach or suggest the some form of "abstracting" -- which it clearly does not -- Kekic does not "abstract interface

data regarding the at least one network element," as expressly set forth in claim 1, for example.

In fact, as previously asserted, Appellant respectfully submits that Kekic does not teach or suggest any feature or functionality that "abstract[s] interface data regarding at least one network element," as expressly recited in claims 1 and 11. Rather, Appellant respectfully submits that Kekic merely discloses the storage of information characterizing the operation of the network element, not the affirmative step of abstracting interface data:

Hence, in FIG. 3, workstation 320, bridge 330, router 340, and printer 350 include network management agent 321 and network management database 322, network management agent 331 and network management database 332, network management agent 341 and network management database 342, and network management agent 351 and network management database 352, respectively. Each of network management agents 321, 331, 341, and 351 communicates over network 300 using predefined commands, such as those defined above in TABLE 1, and a predefined protocol, e.g., SNMP. ***Also, each of the network management agents stores information characterizing the operation of the network element in the network management information database, according to a defined standard, that is associated with the network management agent. The operation of the agents and the storage of data by an agent is the same as in the prior art.***

See, e.g., Kekic Patent, Col. 16, lines 27-44 (emphasis added).

Appellant respectfully submits that storing information about the operation of a network element does not teach or

suggest the affirmative act or step of "abstracting" interface data regarding the at least one network element. Further, Appellant respectfully submits that Kekic does not teach or suggest any feature or functionality that performs the abstraction step performed by the claimed systems and methods.

In fact, in the Advisory Action of November 14, 2005, the Examiner contends that "it is impossible to store abstracted data without creating, or 'abstracting', this data in some affirmative step." Appellant respectfully submits, however, that this does not necessarily mean the systems and methods of Kekic perform the specific function of "abstract[ing] the interface data regarding the at least one network element," as required by each of the independent claims. Further, Applicant respectfully submits that the Examiner's comment in the Advisory Action is an implicit concession that Kekic does not in fact teach or suggest the claimed "abstraction" step. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

To the extent the Examiner is effectively asserting an inherency argument, Applicant respectfully submits that a proper showing has not been made. As stated in MPEP § 2112, "In

relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). Applicant respectfully submits that the Examiner has not provided a basis in fact and/or technical reasoning to reasonably support the determination that the claimed "abstraction" step necessarily flows from the teachings of Kekic.

In view of the above, Appellant respectfully submits that Kekic does not teach or suggest the claimed "abstraction" step, and thus cannot be relied upon to reject the pending claims under 35 U.S.C. §102. Accordingly, Appellant respectfully requests that the anticipation rejection of claims 1 and 11 be withdrawn.

Claims 2-10 and 12-24 are dependent upon independent claim 1 or 11. Thus, since independent claims 1 and 11 should be allowable as discussed above, claims 2-10 and 12-24 should also

be allowable at least by virtue of their dependency on independent claim 1 or 11. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination. For example, claims 23 and 24 recite "wherein network configuration occurs without having to execute a different proprietary tool for each of the at least one network element." Appellant respectfully submits that Kekic does not teach or suggest a processor that operates in the manner recited by the pending claims 23 and 24.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1-20, 23 and 24 be withdrawn.

B. The Rejection Under 35 U.S.C. § 103(a) of Claims 21 and 22 Based on Kekic in view U.S. Patent No. 6,259,679 to Henderson ("Henderson") is Improper

On page 6 of the Office Action, claims 21 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Henderson (U.S. Patent No. 6,788,315). This rejection is hereby respectfully traversed.

As stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner asserts -- and Appellant agrees -- that Kekic fails to teach wherein the processor is further operable to simulate the network. The Examiner asserts that Henderson teaches a network management system capable of designing, simulating, and modifying the topology of a network based on representations of the network elements (column 5, lines 31-43). The Examiner asserts it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Kekic and Henderson to provide the management system of Henderson in the system of Kekic, because doing so would allow a flexible network management architecture that can conform to differing protocols (Henderson, column 2, lines 55-65).

Appellant respectfully submits, however, that the Examiner has not cited a proper motivation for one of ordinary skill in

the art to combine Kekic and Henderson. In particular, Appellant respectfully submits that Henderson's general discussion of "flexibility" fails to motivate one of ordinary skill in the art to specifically combine Kekic's platform independent computer network manager with Henderson's network management system. More specifically, Kekic relates to a system and method for managing computer elements through managed element servers and clients, and thus would not benefit from Henderson's network management architecture that provides an overlay in which network management functions are performed.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 21 and 22 be withdrawn.

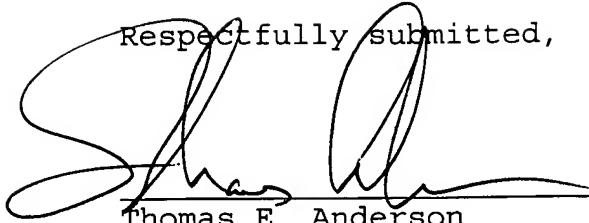
IX. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Thomas E. Anderson', written over a horizontal line.

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January 23, 2006

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APPENDIX A

1. (Previously Presented) A system for configuring networks, comprising:

at least one network element database, the at least one network element database storing abstracted interface data regarding at least one network element; and

a processor, communicating with the at least one network element database, the processor operable to: (1) abstract the interface data regarding the at least one network element, and (2) configure a network using the abstracted interface data stored in the at least one network element database.

2. (Original) The system of claim 1, wherein the at least one network element database comprises a set of data corresponding to network elements.

3. (Original) The system of claim 2, wherein the set of data corresponding to network elements comprises data corresponding to at least one of routing elements, switching elements, optical elements, and wireless elements.

4. (Original) The system of claim 3, wherein the set of data corresponding to network elements is extensible.

5. (Original) The system of claim 1, wherein the processor comprises a user interface.

6. (Original) The system of claim 5, wherein the user interface comprises object oriented code.

7. (Original) The system of claim 6, wherein the user interface comprises at least one of a network element list and a network map.

8. (Original) The system of claim 1, further comprising a network port, the processor communicating via the network port with a network to be configured.

9. (Original) The system of claim 1, wherein the interface data comprises at least one of software interface requirements, hardware interface requirements, and protocol specifications.

10. (Original) The system of claim 1, wherein the processor stores an image of a network for modification.

11. (Previously Presented) A method for configuring networks using a processor, comprising:

a) abstracting interface data regarding at least one network element;

b) storing the abstracted interface data regarding the at least one network element in at least one network element database; and

c) configuring a network via communication with the abstracted interface data stored in the at least one network

element database.

12. (Original) The method of claim 11, wherein the at least one network element database comprises a set of data corresponding to network elements.

13. (Original) The method of claim 12, wherein the set of data corresponding to network elements comprises data corresponding to at least one of routing elements, switching elements, optical elements, and wireless elements.

14. (Original) The method of claim 13, wherein the set of data corresponding to network elements is extensible.

15. (Original) The method of claim 11, wherein the processor comprises a user interface.

16. (Original) The method of claim 15, wherein the user interface comprises object oriented code.

17. (Original) The method of claim 16, wherein the user interface comprises at least one of a network element list and a network map.

18. (Original) The method of claim 11, further comprising a step of c) communicating via a network port with a network to be configured.

19. (Original) The method of claim 11, wherein the interface data comprises at least one of software interface requirements, hardware interface requirements, and protocol

specifications.

20. (Original) The method of claim 11, further comprising a step of d) storing an image of a network for modification.

21. (Previously Presented) The system of claim 1 wherein the processor is further operable to simulate the network.

22. (Previously Presented) The method of claim 11 network wherein the processor is further operable to simulate the network.

23. (Previously Presented) The system of claim 1 wherein network configuration occurs without having to execute a different proprietary tool for each of the at least one network element.

24. (Previously Presented) The method of claim 11 wherein network configuration occurs without having to execute a different proprietary tool for each of the at least one network element.